

Effectiveness of Social Stories in Children with Semantic Pragmatic Disorder

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Abstract

Semantic pragmatic disorder is a term used to describe the communicative behavior of children who presented traits such as pathological talkativeness, deficient access to vocabulary and discourse comprehension, atypical choice of terms and inappropriate conversational skills (Rapin and Allen 1983). There are very few studies assessing the efficacy of social stories in childhood language disorders. The present study aimed at examining the efficacy of social stories for children semantic pragmatic disorder. Method: A single subject design was implemented on two subjects and was followed in three phases: Phase I: A baseline of non-desirable behaviors. Phase II: Behaviors immediately post therapy. Phase III: Follow-up rating. Result and discussion: Use of social stories was found to be very effective in decreasing the non-desirable behaviors by 20% to 100% in both the subjects. Follow up evaluation after three months showed that, the improvement was maintained even after termination of therapy sessions. Parents and teachers of the subjects were happy and satisfied with the improvement. Shannon and Matthew (2005) also reported that the disruptive behavior decreased to a great extent when the story was paired with prompting.

Keywords: Semantic pragmatic disorder, social stories.

Introduction:

Semantic-Pragmatic Disorder (SPD) or pragmatic language impairment (PLI) is a proposed concept of a developmental disorder related to [autism](#) and [Asperger syndrome](#). The name refers to the fact that people with SPD have special challenges with the semantic aspect of language (the meaning of what is being said) and the pragmatics of language (using language appropriately in social situations). In Semantic pragmatic disorder is a term used to describe the communicative behavior of children who presented traits such as pathological talkativeness, deficient access to vocabulary and discourse comprehension, atypical choice of terms and inappropriate conversational skills (Rapin and Allen 1983).

According to Bishop and Norbury (2002), while autistic children exhibit semantic-pragmatic language disorder, this type of communication disorder is also common in individuals with other disorders like auditory processing disorders, neuropathies, encephalopathies and certain genetic disorders. Children with semantic-pragmatic disorder were found to have fluent, complex and clearly articulated expressive language but exhibited problems with language usage. These children typically are talkative. However, they usually have problems understanding and producing connected discourse, giving conversational responses that are socially inappropriate, tangential and/or stereotyped and often develop obsessional interests.

A social story is a short story that is written in a child specific format describing a social situation, person, skill, event, or concept in terms of relevant cues and appropriate social responses. Each social story is designed to teach children with autism how to manage their own behaviour during a given social situation by describing where the activity will take place, when it will occur, what will happen, who is participating, and why the child should behave in a given manner. Social stories were introduced in 1993 as a method to help teach social skills to individuals with an autism spectrum disorder (Rust and Smith 2006). It is an individualized short story that describes social relevant cues in any given situation. It breaks down a challenging social situation into

understandable steps to help an individual with autistic spectrum disorder understand the totality of a situation. It includes answers to 'wh' questions in social situations through the use of visuals and written text (Scattone et al 2002).

Gray (1993) originally developed the framework used in writing and implementing social stories. As mentioned, social stories follow a predictable sequence involving specific types of sentences: two to five sentences describing each appropriate behavior in a social situation (descriptive sentences); one sentence describing positive, observable appropriate responses (directive sentence); one sentence describing the viewpoint of others as they react to the situation (perspective sentence); one optional sentence describing a commonly shared value or opinion; and one sentence that reminds the child of the appropriate behavior in the social situation (control sentence).

Shannon and Matthew (2005) examined the effects of a modified social story, with and without verbal prompts, on the disruptive behavior of a student with autism in his preschool classroom. The disruptive behavior decreased during both phases of the intervention but to a greater degree when the story was paired with prompting. Maintenance probes conducted 2 weeks after intervention revealed that the modified social story had become a regular instructional routine for the student.

Scattone et al (2002) found that Social Stories decreased challenging behaviors in children with autism, but they identified verbal prompts as a source of variability to be examined in future study. Susan, Ron & Brian (2002) extended the literature by demonstrating that properly constructed social stories may decrease the disruptive behaviours of some children with autism and that social stories may be used without planned systematic behavioral interventions such as token economies.

Method:

Two subjects aged 9 years and 11 years, diagnosed as having semantic pragmatic disorder by an experienced speech language pathologist were considered for the study. Appropriate assessment was carried out for the same.

Research Design: The study employed an ABC single-subject design consisting of three phases

A. Baseline (no Social Story): Individual with semantic pragmatic disorder aged 9 and 11 years were selected for this study. A baseline was prepared by taking detailed information from the parents and teachers. The non desirable behaviors present in the child were noted down in detail and those behaviors which were the major concern were taken up for intervention based on the parent's priority.

B. Intervention Phase I: Social stories were used to reduce the undesirable behaviours and increase the desirable behaviours. Social stories framed, consisted of four parts as:

- 1.) Descriptive Sentences: Describing where the situation occurs, who is involved, what the individual is doing, and why.
- 2.) Perspective Sentences: Reflecting others perspectives and describing how others feel and react within a given situation.
- 3.) Directive Sentences: Describing the responses and actions that she should ideally do in a given situation. The desired behavior was defined in positive terms. The sentences began with "I will try....." "I will do..." etc.
- 4.) Control Sentences: Describing the strategies that she would use to remember the information imparted by the social story.

These social stories were read and enacted to the subjects with increased suprasegmental features along with pictures illustrating the activity mentioned in the social story. Subjects were then asked questions regarding the social story that she has just heard.

C. Intervention Phase II: The same social story was read prior to the observation. Parents and teachers concerned were then asked to observe and pen down the behaviour in the natural settings where she manifested the problem. It was cross checked by creating similar situations artificially in the clinical set ups.

A five point rating scale was used to rate the effectiveness of social stories based on the severity of the undesirable behavior before intervention, after four to five sessions post speech therapy using social stories and follow up after 3 months post therapy. Undesirable behaviors were numbered in terms of A series (A1 to A10) for Subject A and B series (B1 to B7) for subject B.

Results and discussion:

Severity of the undesirable behaviors was compared before therapy, immediately after therapy using social stories and follow up of 3 months post therapy as shown in the graph 1.1 and 1.2 below.

Social stories were found to be very useful in reducing the severity of undesirable behaviours after 4 to 5 sessions of speech therapy. Comparison with the follow-up behavior ratings showed that the tackled behaviors were either maintained or mildly increased in severity even after three months of therapy.

As per the reports from the parents and concerned teachers these behaviors decreased upto 70 to 80% post first session and fully changed into the desirable behaviors after the second session. Follow up was maintained for a period of three months to rule out the recurrence of these behaviors.

Graph 1.1: Severity of non-desirable behaviors in subject A pre therapy, post therapy and follow-up evaluation.

Considerable improvement was seen in both the subjects when social stories were used to tackle the undesirable behaviors. In subject A, undesirable behavior like, A2, A5, A6, A8 and A10 as mentioned in the rating scale, reduced drastically after the use of social stories and this improvement continued even after the three months of terminating the therapy. Severity of behaviors A1, A3, A4, A9 reduced post therapy but reoccurred as seen after 3 months post therapy

In subject B also, all the undesirable behaviors mentioned in the rating scale, showed improvement post therapy. This change was maintained even after 3 months post therapy except for the behaviors like B6 and B7 which increased its severity by 20% after terminating of therapy.

Conclusion:

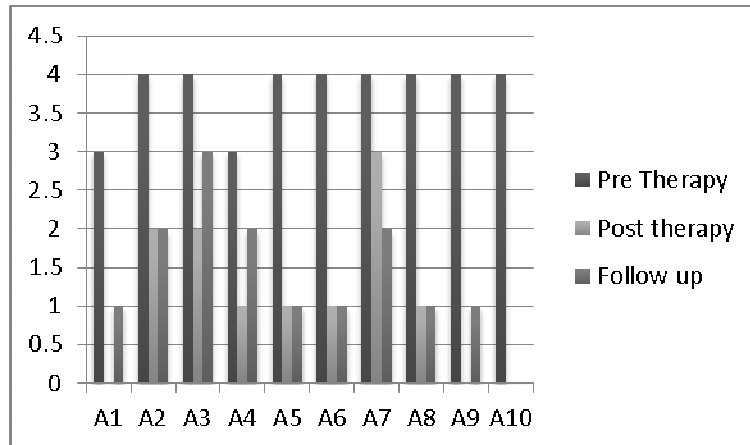
The non-desirable behaviors in the subjects decreased considerably when social stories were used to tackle these problems. Parents and teachers were very satisfied and happy with the sustained improvement in the subject's behavior in school as well as other social places. Matthew (2005) also reported that the disruptive behavior decreased to a great extent when the story was paired with prompting. The literature in this area is very limited and most of the data is on a single case study. So there is a need for further research with a larger number of subjects .

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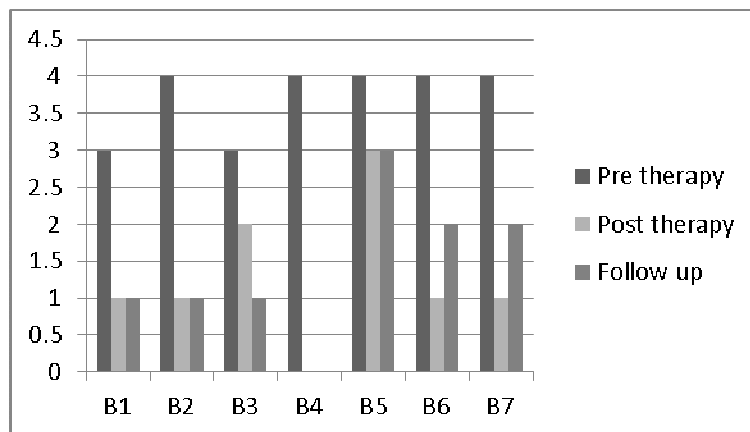
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Graph:

Graph 1.1: Severity of non-desirable behaviors in subject A pre therapy, post therapy and follow-up evaluation



Graph 1.2: Severity of non-desirable behaviors in subject B pre therapy, post therapy and follow-up evaluation.



Appendix:

A 5 point custom made rating scales used for the study based on the undesirable behaviors manifested by the subjects is as follows.

0: Never 1: Rarely 2: Occasionally 3: Often 4: Always

Subject A: Male aged 11years

Sr. No.	Behavioral problems as reported by the parents	Pre therapy rating	Immediate post therapy rating.	Follow up rating
A1	Very immature and childish in social gatherings.			
A2	Does not understand others intentions and is careless about their feelings.			
A3	Difficulty making friends of his own age.			
A4	Approaches children and adults inappropriately.			
A5	Talks nonstop about his own interests regardless of listeners interest.			
A6	Prefers self-chosen activity and resists adult direction and demonstrated difficulty in following rule based games.			
A7	Only works when he wants to and does not listen to what parents say.			
A8	Very fussy about eating habits.			
A9	Does not wait for his turn and gets restless very fast.			
A10	Gets very upset when he is unable to answer a question in examination and leaves the answer sheet blank.			

Subject B: 9years old female

Sr.	Behavioral problems as reported by the parents	Pre therapy	Immediate	Follow up
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No.		rating	post therapy rating.	rating
B1	Does not wish elders and teachers.			
B2	Back answers when being corrected or scolded.			
B3	Troubles the younger baby brother and beats him.			
B4	Talks softly in the noisy places and loudly in quiet places.			
B5	Gets very upset and disturbed when she does not score the highest in examinations.			
B6	Does not wait for her turn.			
B7	Does not like sharing her things with others.			

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